COMPUTATIONAL RESEARCH
in BOSTON and BEYOND SEMINAR

Enabling Energy-Efficient AI
on HPC Systems

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ABSTRACT:

The improvement in performance of AI across a variety of fields has come alongside exponentially increasing computational requirements and energy costs to develop these technologies. Consequently there is an urgent need for research in energy-efficient AI in addition to ways to incentivize this line of research. This talk presents recent work on multiple approaches towards reducing the carbon footprint of training and deploying AI applications. We highlight easily implementable changes to different factors in the machine learning lifecycle, including model development as well as high performance computing hardware and datacenter operation, that can lead to significant reductions in the energy required.

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